

Our company has been providing internet access to our rural community since 1994. For the past 18 months we have been providing wireless internet access in 2.4GHZ bands to those customers who are beyond the reach of DSL, or for whom ISDN is not a satisfactory solution.

Our client base is primarily commercial, though we are beginning to see a number of residential customers requesting the service. The residential customers find the wireless service to be a valuable resource when tele-commuting.

Since our initial roll out on one tower, we have added three additional towers to expand our coverage areas. We are constantly getting requests to offer the service in new locations.

The biggest drawbacks at this point in time for unlicensed spectrum are the low power limits on 5mhz wide FHSS, the inability to synchronize radios, the poor signal penetration through foliage, and the poor Non Line Of Site (NLOS) performance of the 2.4 GHZ spectrum (this becomes a greater problem at higher frequencies.)

Spectrum below 1GHZ would aid with the NLOS problem as well as with foliage penetration. Adaptive power limits would also aid greatly with both existing spectrum as well as new spectrum that may be allocated.